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EXAMINER
KOSOWSKI, ALEXANDER J

ART UNIT	PAPER NUMBER
2125	7

DATE MAILED: 05/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/819,670	TAKEUCHI ET AL.	
	Examiner	Art Unit	
	Alexander J Kosowski	2125	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 May 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-41* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-41* is/are rejected.

7)☒ Claim(s) *41* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 March 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1) Claims 1-40 and new claim 41 as amended 5/6/03 are presented for examination. The substitute specification submitted 5/6/03 has been accepted.

Claim Objections

2) Claim 41 is objected to because of the following informalities:

Referring to claim 41, line 3, the phrase "stocker and using and F2 excimer laser" should read --stocker and using an F2 excimer laser--.

Referring to claim 41, line 6, the phrase "annealing member" should read --sealing member--. This change will also alleviate an antecedent basis issue in the claim.

Referring to claim 41, line 10, the phrase "from the exposure apparatus using or receiving the object to be stocked", examiner believes the word "using" should be deleted in order for the claim language to make sense.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4) Claims 1-5, 7-11, 13-22, 24-27, 29-33 and 41 are rejected under 35 U.S.C. 103(a) as being anticipated by Saito (U.S. Pat 5,433,785), further in view of Suenaga et al (U.S. Pat 6,451,507).

Referring to claim 1, Saito discloses a stocker comprising a first sealing member for stocking an object to be stocked with atmosphere control means for controlling an internal atmosphere of said first sealing member to a first atmosphere of an inert gas (col. 4 lines 44-55), transfer means for transporting an object to be stocked to an exposure apparatus or receiving the object to be stocked from the exposure apparatus while the object to be stocked is shielded from an external atmosphere of said first sealing member (col. 3 lines 63-68 and col. 4 lines 1-68, whereby the reaction chamber is considered an exposure apparatus). However, Saito does not explicitly teach that the exposure apparatus uses an F2 excimer laser.

Suenaga teaches a stocker in conjunction with an exposure apparatus which uses an F2 laser (col. 17 lines 13-15) and a sealing member (col. 19 lines 12-29).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to utilize an F2 excimer laser in the stocker taught by Saito since an F2 laser improves the resolving power of a projection optical system, allowing for finer patterns in semiconductor integrated circuits, and since a stocker utilizing sealed members is necessary to reduce the amount of oxygen which is known to absorb F2 laser wavelengths (Suenaga, col. 1 lines 12-47).

Referring to claim 2, Saito discloses the stocker further comprises a load-lock chamber, and the object to be stocked is transported to outside of said first sealing member or received from the outside of said first sealing member via said load-lock chamber (col. 4 lines 26-31).

Referring to claim 3, Saito discloses atmosphere measurement means for measuring the internal atmosphere of said first sealing member (Abstract, lines 1-5).

Referring to claim 4, Saito discloses that atmosphere measurement means include an oxygen analyzer (Abstract, lines 1-5).

Referring to claim 5, Saito discloses the first atmosphere has an oxygen concentration of not more than 5 ppm at its steady state (col. 4 lines 8-25, whereby the ppm of oxygen could inherently be lowered to any desirable concentration).

Referring to claim 7, Saito discloses that the inert gas includes a nitrogen gas (col. 4 lines 55-60).

Referring to claim 8, Saito discloses a second sealing member inside said first sealing member whereby the object to be stocked is transported to the outside of said first sealing member while stored in said second sealing member (col. 3 lines 63-68 and col. 4 lines 1-7).

Referring to claim 9, Saito discloses that the stocker is connected to the exposure apparatus via a highly airtight transfer path (col. 4 lines 26-31).

Referring to claims 10 and 11, Saito discloses that the atmosphere control means has gas injection means and evacuation means (col. 4 lines 32-51).

Referring to claim 13, Saito discloses transfer means for transporting the object to be stocked to apparatuses for performing various processes (Abstract, whereby the stocker taught by Saito would inherently have transfer means for moving semiconductors between various processes in a production facility).

Referring to claims 14-15, Saito discloses the stocker shown above. However, Saito does not explicitly teach that the object to be stocked may be a reticle or that a reticle changer exists for supplying a desired reticle to the exposure apparatus.

Suenaga teaches a stocker whereby reticles may be stocked and whereby a reticle changer contains multiple types of reticles to be supplied to an exposure apparatus (col. 18 lines 26-38).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to utilize the reticles taught by Suenaga in the stocker taught by Saito since the use of reticles would allow an image of a pattern to be transferred onto a wafer via a projection optical system (Suenaga, col. 1 lines 12-17), which is necessary for semiconductor production.

Referring to claim 16, Saito discloses the object to be stocked includes a wafer (col. 3 lines 63-66).

Referring to claim 17, Saito discloses a stocker including a first sealing member for stocking an object to be stocked with atmosphere control means for controlling an internal atmosphere of said first sealing member to a first atmosphere of an inert gas (col. 4 lines 44-55), transfer means for transporting an object to be stocked to an exposure apparatus or receiving the object to be stocked from the exposure apparatus while the object to be stocked is shielded from an external atmosphere of said first sealing member (col. 3 lines 63-68 and col. 4 lines 1-68, whereby the reaction chamber is considered an exposure apparatus). However, Saito does not explicitly teach that the exposure apparatus uses an F2 excimer laser.

Suenaga teaches a stocker in conjunction with an exposure apparatus which uses an F2 laser (col. 17 lines 13-15) and a sealing member (col. 19 lines 12-29).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to utilize an F2 excimer laser in the stocker taught by Saito since an F2 laser improves the resolving power of a projection optical system, allowing for finer patterns in semiconductor integrated circuits, and since a stocker utilizing sealed members is necessary to reduce the amount of oxygen which is known to absorb F2 laser wavelengths (Suenaga, col. 1 lines 12-47).

Referring to claim 18, Saito discloses a stocker comprising a first sealing member and first atmosphere control means for controlling an internal atmosphere of said first sealing member to a first atmosphere of an inert gas (col. 4 lines 44-55), second atmosphere control means for controlling an internal atmosphere of a second sealing member to a second atmosphere, wherein the second sealing member stores at least one object to be stocked and is stocked in said first sealing member (col. 3 lines 63-68 and col. 4 lines 1-7), transfer means for transporting the second sealing member storing the at least one object to be stocked to an exposure apparatus or receiving the second sealing member storing the at least one object to be stocked from the exposure apparatus while the second sealing member is shielded from an external atmosphere of said first sealing member (col. 3 lines 63-68 and col. 4 lines 1-68, whereby the reaction chamber is considered an exposure apparatus). However, Saito does not explicitly teach that the exposure apparatus uses an F2 excimer laser, nor that the second sealing member may comprise a second atmosphere of an inert gas.

Suenaga teaches a stocker in conjunction with an exposure apparatus which uses an F2 laser (col. 17 lines 13-15) and a sealing member (col. 19 lines 12-29).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to utilize an F2 excimer laser in the stocker taught by Saito since an F2 laser improves the resolving power of a projection optical system, allowing for finer patterns in semiconductor integrated circuits, and since a stocker utilizing sealed members is necessary to reduce the amount of oxygen which is known to absorb F2 laser wavelengths (Suenaga, col. 1 lines 12-47).

Referring to the second atmosphere of an inert gas, Saito discloses evacuating the second sealing member (col. 3 line 68 to col. 4 line 1) and Saito also discloses controlling the

atmosphere of the first sealing member to a first atmosphere of an inert gas (col. 4 lines 44-55). It is respectfully submitted that atmosphere control means for the second sealing member could control a second atmosphere of an inert gas in the stocker taught by Saito since a means for controlling the atmosphere of the second sealing member by evacuation already exist, a supply of inert gas is already available in the system, and since the goal of the stocker is to bring both the first and second sealing member into identical atmospheres before exposure (whereby either a vacuum or an identical inert gas atmosphere for both sealing members would accomplish this goal).

Referring to claim 19, Saito discloses that the stocker further comprises a load-lock chamber and the object to be stocked is transported to outside of said first sealing member or received from the outside of said first sealing member via said load-lock chamber while stored in said second sealing member (col. 4 lines 26-43).

Referring to claims 20-21, Saito discloses using an oxygen analyzer to measure the internal atmosphere of the second sealing member (Abstract, lines 1-5). Saito also teaches that the first sealing member is evacuated of air in order to control the oxygen inside (col. 3 lines 63-68 and col. 4 lines 1-7). However, Saito does not explicitly teach using an analyzer to measure the internal atmosphere of the first sealing member.

It is respectfully submitted that it would have been obvious to one skilled in the art at the time the invention was made to utilize an oxygen analyzer to measure the internal atmosphere of the first sealing member as well as the second sealing member since it would be desirable to ensure the oxygen density around the semiconductor wafers is low enough that oxygen leakage does not cause a native oxide film to be formed on the substrate (Saito, col. 1 lines 43-64).

Referring to claim 22, Saito discloses that the first atmosphere has an oxygen concentration of not more than 50 ppm at its steady state and the second atmosphere has an oxygen concentration of not more than 5 ppm at its stead state (col. 3 lines 63-68 and col. 4 lines 1-25, whereby the ppm of oxygen could inherently be lowered to any desirable concentration).

Referring to claim 24, Saito discloses the inert gas includes a nitrogen gas (col. 4 lines 55-60).

Referring to claim 25, Saito discloses that the stocker is connected to the exposure apparatus via a highly airtight transfer path (col. 4 lines 26-31).

Referring to claims 26 and 27, Saito discloses that the first and second atmosphere control means have gas injection means and evacuation means (col. 4 lines 32-51).

Referring to claim 29, see rejection of claim 13 above.

Referring to claims 30-31, see rejection of claims 14-15 above.

Referring to claim 32, Saito discloses that the object to be stocked includes a wafer (col. 3 lines 63-66).

Referring to claim 33, Saito discloses a stocker including a first sealing member and first atmosphere control means for controlling an internal atmosphere of said first sealing member to a first atmosphere of an inert gas (col. 4 lines 44-55), second atmosphere control means for controlling an internal atmosphere of a second sealing member to a second atmosphere, wherein the second sealing member stores at least one object to be stocked and is stocked in said first sealing member (col. 3 lines 63-68 and col. 4 lines 1-7), and transfer means for transporting the second sealing member storing the at least one object to be stocked to an exposure apparatus or receiving the object to be stocked from the exposure apparatus while the second sealing member

is shielded from an external atmosphere of said first sealing member. (col. 3 lines 63-68 and col. 4 lines 1-68, whereby the reaction chamber is considered an exposure apparatus). However, Saito does not explicitly teach that the exposure apparatus uses an F2 excimer laser, nor that the second atmosphere of the second sealing member is an inert gas.

Suenaga teaches a stocker in conjunction with an exposure apparatus which uses an F2 laser (col. 17 lines 13-15) and a sealing member (col. 19 lines 12-29).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to utilize an F2 excimer laser in the stocker taught by Saito since an F2 laser improves the resolving power of a projection optical system, allowing for finer patterns in semiconductor integrated circuits, and since a stocker utilizing sealed members is necessary to reduce the amount of oxygen which is known to absorb F2 laser wavelengths (Suenaga, col. 1 lines 12-47).

Referring to the second atmosphere of an inert gas, Saito discloses evacuating the second sealing member (col. 3 line 68 to col. 4 line 1) and Saito also discloses controlling the atmosphere of the first sealing member to a first atmosphere of an inert gas (col. 4 lines 44-55). It is respectfully submitted that atmosphere control means for the second sealing member could control a second atmosphere of an inert gas in the stocker taught by Saito since a means for controlling the atmosphere of the second sealing member by evacuation already exist, a supply of inert gas is already available in the system, and since the goal of the stocker is to bring both the first and second sealing member into identical atmospheres before exposure (whereby either a vacuum or an identical inert gas atmosphere for both sealing members would accomplish this goal).

Referring to claim 41, Saito discloses a semiconductor device manufacturing method comprising the steps of exposing an object to be processed using an exposure apparatus comprising a stocker and developing the exposed object to be processed (col. 3 lines 63-68 and col. 4 lines 1-68, whereby the reaction chamber is considered an exposure apparatus), wherein the stocker has a first sealing member for stocking an object to be stocked and first atmosphere control means for controlling an internal atmosphere of the first sealing member to a first atmosphere of an inert gas (col. 4 lines 44-55), and transfer means for transporting an object to be stocked from the exposure apparatus or receiving the object to be stocked from the exposure apparatus while the object to be stocked is shielded from an external atmosphere of the first sealing member (col. 3 lines 63-68 and col. 4 lines 1-68, whereby the reaction chamber is considered an exposure apparatus). However, Saito does not explicitly teach that the exposure apparatus uses an F2 excimer laser.

Suenaga teaches a stocker in conjunction with an exposure apparatus which uses an F2 laser (col. 17 lines 13-15) and a sealing member (col. 19 lines 12-29).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to utilize an F2 excimer laser in the stocker taught by Saito since an F2 laser improves the resolving power of a projection optical system, allowing for finer patterns in semiconductor integrated circuits, and since a stocker utilizing sealed members is necessary to reduce the amount of oxygen which is known to absorb F2 laser wavelengths (Suenaga, col. 1 lines 12-47).

5) Claims 34-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito and Suenaga, further in view of Song et al (U.S. Pat 6,487,472).

Referring to claims 34-36, Saito discloses a stocker comprising a first sealing member and first atmosphere control means for controlling an internal atmosphere of said first sealing member to a first atmosphere (col. 4 lines 44-55), second atmosphere control means for controlling an internal atmosphere of a second sealing member to a second atmosphere, wherein the second sealing member stores at least one object to be stocked and is stocked in said first sealing member (col. 3 lines 63-68 and col. 4 lines 1-7), transfer means for transporting the second sealing member storing the at least one object to be stocked to an exposure apparatus or receiving the second sealing member storing the at least one object to be stocked from the exposure apparatus while the second sealing member is shielded from an external atmosphere of the first sealing member (col. 3 lines 63-68 and col. 4 lines 1-68, whereby the reaction chamber is considered an exposure apparatus). However, Saito does not explicitly that the exposure apparatus uses an F2 excimer laser, that the atmosphere of the second sealing member is an inert gas, installing manufacturing apparatuses for various processes in a semiconductor manufacturing factory, manufacturing a semiconductor device in a plurality of processes by using the manufacturing apparatus, connecting the manufacturing apparatuses by a local area network, communicating information about at least one of the manufacturing apparatuses between the local area network and an external network of the semiconductor manufacturing facility, nor that maintenance information of the manufacturing apparatus is acquired by data communication by accessing via the external network a database provided by a vendor or user of the exposure apparatus.

Song teaches a semiconductor manufacturing facility whereby various processes including an exposure apparatus are installed and whereby semiconductors are manufactured in a

plurality of processes by using manufacturing apparatuses (col. 2 lines 17-23), whereby the manufacturing apparatuses are connected via a local area network and communicate information between the local area network and an external network (col. 7 lines 60-67), and whereby maintenance information is acquired by data communication by accessing via the external network a database provided by a user (col. 8 lines 17-62).

Suenaga teaches a stocker in conjunction with an exposure apparatus which uses an F2 laser (col. 17 lines 13-15) and a sealing member (col. 19 lines 12-29).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to utilize the semiconductor manufacturing network taught by Song with the stocker apparatus taught by Saito since a networked semiconductor manufacturing facility would allow for easy monitoring of the operation states of various fabrication systems and allow for control of the fabrication systems in case of abnormal operation states (Song, col. 1 lines 59-67).

Therefore, it would also have been obvious to one skilled in the art at the time the invention was made to utilize an F2 excimer laser in the stocker taught by Saito since an F2 laser improves the resolving power of a projection optical system, allowing for finer patterns in semiconductor integrated circuits, and since a stocker utilizing sealed members is necessary to reduce the amount of oxygen which is known to absorb F2 laser wavelengths (Suenaga, col. 1 lines 12-47).

Referring to the second atmosphere of an inert gas, Saito discloses evacuating the second sealing member (col. 3 line 68 to col. 4 line 1) and Saito also discloses controlling the atmosphere of the first sealing member to a first atmosphere of an inert gas (col. 4 lines 44-55). It is respectfully submitted that atmosphere control means for the second sealing member could

control a second atmosphere of an inert gas in the stocker taught by Saito since a means for controlling the atmosphere of the second sealing member by evacuation already exist, a supply of inert gas is already available in the system, and since the goal of the stocker is to bring both the first and second sealing member into identical atmospheres before exposure (whereby either a vacuum or an identical inert gas atmosphere for both sealing members would accomplish this goal).

Referring to claim 37, Saito discloses a stocker comprising a first sealing member and first atmosphere control means for controlling an internal atmosphere of said first sealing member to a first atmosphere of an inert gas (col. 4 lines 44-55), second atmosphere control means for controlling an internal atmosphere of a second sealing member to a second atmosphere, wherein the second sealing member stores at least one object to be stocked and is stocked in said first sealing member (col. 3 lines 63-68 and col. 4 lines 1-7), transfer means for transporting the second sealing member storing the at least one object to be stocked to the exposure apparatus or receiving the second sealing member storing the at least one object to be stocked from the exposure apparatus while the second sealing member is shielded from an external atmosphere of said first sealing member (col. 3 lines 63-68 and col. 4 lines 1-68, whereby the reaction chamber is considered an exposure apparatus). However, Saito does not explicitly teach that the exposure apparatus uses an F2 excimer laser, that the second atmosphere is an inert gas atmosphere, a semiconductor manufacturing facility comprising manufacturing apparatuses for various processes, a local area network for connecting said manufacturing apparatuses, nor gateway for allowing the local area network to access an external network of

said factory, wherein information about at least one of said manufacturing apparatuses is communicated.

Song teaches a semiconductor manufacturing facility whereby various processes including an exposure apparatus are installed and whereby semiconductors are manufactured in a plurality of processes by using manufacturing apparatuses (col. 2 lines 17-23), whereby the manufacturing apparatuses are connected via a local area network and communicate information between the local area network and an external network via a gateway (col. 7 lines 60-67), and whereby information about the manufacturing apparatuses is communicated (col. 8 lines 17-62).

Suenaga teaches a stocker in conjunction with an exposure apparatus which uses an F2 laser (col. 17 lines 13-15) and a sealing member (col. 19 lines 12-29).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to utilize the semiconductor manufacturing network taught by Song with the stocker apparatus taught by Saito since a networked semiconductor manufacturing facility would allow for easy monitoring of the operation states of various fabrication systems and allow for control of the fabrication systems in case of abnormal operation states (Song, col. 1 lines 59-67).

Therefore, it would also have been obvious to one skilled in the art at the time the invention was made to utilize an F2 excimer laser in the stocker taught by Saito since an F2 laser improves the resolving power of a projection optical system, allowing for finer patterns in semiconductor integrated circuits, and since a stocker utilizing sealed members is necessary to reduce the amount of oxygen which is known to absorb F2 laser wavelengths (Suenaga, col. 1 lines 12-47).

Referring to the second atmosphere of an inert gas, Saito discloses evacuating the second sealing member (col. 3 line 68 to col. 4 line 1) and Saito also discloses controlling the atmosphere of the first sealing member to a first atmosphere of an inert gas (col. 4 lines 44-55). It is respectfully submitted that atmosphere control means for the second sealing member could control a second atmosphere of an inert gas in the stocker taught by Saito since a means for controlling the atmosphere of the second sealing member by evacuation already exist, a supply of inert gas is already available in the system, and since the goal of the stocker is to bring both the first and second sealing member into identical atmospheres before exposure (whereby either a vacuum or an identical inert gas atmosphere for both sealing members would accomplish this goal).

Referring to claim 38, Saito discloses a stocker comprising a first sealing member and first atmosphere control means for controlling an internal atmosphere of said first sealing member to a first atmosphere of an inert gas (col. 4 lines 44-55), second atmosphere control means for controlling an internal atmosphere of a second sealing member to a second atmosphere, wherein the second sealing member stores at least one object to be stocked and is stocked in said first sealing member (col. 3 lines 63-68 and col. 4 lines 1-7), transfer means for transporting the second sealing member storing the at least one object to be stocked to an exposure apparatus or receiving the object to be stocked from the exposure apparatus while the second sealing member is shielded from an external atmosphere of said first sealing member (col. 3 lines 63-68 and col. 4 lines 1-68, whereby the reaction chamber is considered an exposure apparatus). However, Saito does not explicitly teach the exposure apparatus uses an F2 excimer laser, that the second atmosphere is an inert gas atmosphere, causing a user of an exposure

apparatus to provide a maintenance database connected to an external network, authenticating access from the semiconductor manufacturing factory to the maintenance database via the external network, nor transmitting maintenance information accumulated in the maintenance database to the semiconductor manufacturing factory via the external network.

Song teaches a semiconductor manufacturing facility whereby a maintenance database is connected to an external network, access is authenticated via the external network, and maintenance information is accumulated in the maintenance database via the external network (col. 8 lines 17-62, whereby an external user would inherently need to be authenticated to gain access).

Suenaga teaches a stocker in conjunction with an exposure apparatus which uses an F2 laser (col. 17 lines 13-15) and a sealing member (col. 19 lines 12-29).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to utilize the semiconductor manufacturing network taught by Song with the stocker apparatus taught by Saito since a networked semiconductor manufacturing facility would allow for easy monitoring of the operation states of various fabrication systems and allow for control of the fabrication systems in case of abnormal operation states (Song, col. 1 lines 59-67).

Therefore, it would also have been obvious to one skilled in the art at the time the invention was made to utilize an F2 excimer laser in the stocker taught by Saito since an F2 laser improves the resolving power of a projection optical system, allowing for finer patterns in semiconductor integrated circuits, and since a stocker utilizing sealed members is necessary to reduce the amount of oxygen which is known to absorb F2 laser wavelengths (Suenaga, col. 1 lines 12-47).

Referring to the second atmosphere of an inert gas, Saito discloses evacuating the second sealing member (col. 3 line 68 to col. 4 line 1) and Saito also discloses controlling the atmosphere of the first sealing member to a first atmosphere of an inert gas (col. 4 lines 44-55). It is respectfully submitted that atmosphere control means for the second sealing member could control a second atmosphere of an inert gas in the stocker taught by Saito since a means for controlling the atmosphere of the second sealing member by evacuation already exist, a supply of inert gas is already available in the system, and since the goal of the stocker is to bring both the first and second sealing member into identical atmospheres before exposure (whereby either a vacuum or an identical inert gas atmosphere for both sealing members would accomplish this goal).

Referring to claims 39-40, Saito discloses the apparatus shown above. However, Saito does not explicitly teach a display, a network interface, a computer for executing network access software allowing maintenance information of the exposure apparatus to be communicated via a computer network, nor that the network access software is connected to an external network of a factory where the exposure apparatus is installed, providing on said display a user interface for accessing a maintenance database provided by a user of the exposure apparatus and enabling obtaining information from the database via the external network.

Song teaches a semiconductor manufacturing facility with a display, a network interface, and a computer for executing network access software (col. 7 lines 61-67, whereby a personal computer inherently contains a display), whereby a maintenance database can be accessed via an external network for obtaining information (col. 7 lines 61-67 and col. 8 lines 17-62).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to utilize the semiconductor manufacturing network taught by Song with the stocker apparatus taught by Saito since a networked semiconductor manufacturing facility would allow for easy monitoring of the operation states of various fabrication systems and allow for control of the fabrication systems in case of abnormal operation states (Song, col. 1 lines 59-67).

Response to Arguments

6) Referring to the argument that Saito does not teach using an F2 excimer laser, examiner notes the new rejection above using the Suenaga reference. Suenaga clearly teaches the use of an F2 laser in a semiconductor stocker system, and also teaches that it is known that the presence of oxygen can be detrimental to such a system (Suenaga, col. 1 lines 12-47).

Referring to the argument that Saito does not teach that the wafer cassettes are air tightly sealed as in a double sealing arrangement, examiner notes the new rejection above, and also notes that Saito explicitly teaches that the wafer cassettes are air tightly sealed (Saito, col. 3 line 68 to col. 4 line 1).

In addition, aside from merely alleging that certain features are not evident in the disclosed prior art, essentially in the form of blanket statements, applicant does not point to any specific distinction(s) between the features disclosed in the references and the features that are presently claimed. In particular, 37 CFR 1.111(b) states, "A general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the reference does not comply with the requirements of this section." Applicant has failed to specifically point out how the language of the claims patentably

distinguishes them from the applied references. Instead, the arguments in the amendment filed 5/6/03 are mostly related to the specification, rather than the actual claim language.

Conclusion

7) Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander J Kosowski whose telephone number is 703-305-3958. The examiner can normally be reached on Monday through Friday, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on 703-308-0538. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7239 for After Final communications. In addition, the examiner's RightFAX number is 703-746-8370.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Alexander J. Kosowski
Patent Examiner
Art Unit 2125

A J K Pal 5-2007
ALBERT W. PALADINI
PRIMARY EXAMINER